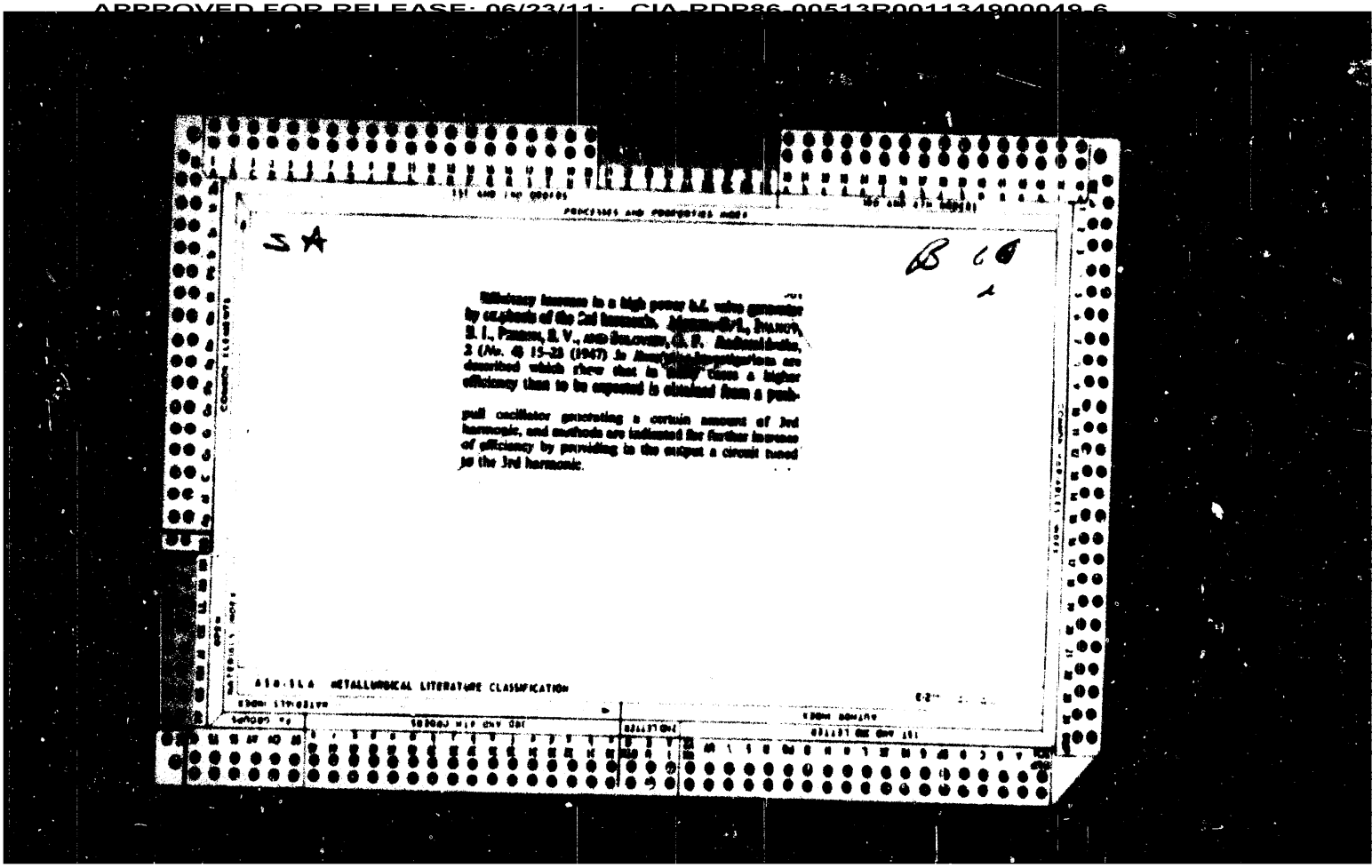
ustroystva (Radio transmitter installations). Moscow Gos. izd-vo lit-ry po voprosam svyazi i radio, 1959. 184p.
[redacted] TK6561.M62; [redacted] No. 198-A; [redacted] M/5 353.1.M6, [redacted] 283721.

This is a textbook on radio transmitters. It explains the processes in radio transmission including the micro-waves range, applying a preeminently graphic method, but no calculus. It was approved by the school department of the Communications Ministry of the USSR as a textbook for the middle technical schools.



PROCESSES AND PROPERTIES INDEX

SA

B 66

Principles of power aggregation in valve generators. [illegible]. [illegible], 2 (No. 1) 3-16 (1957) In Russian.—The block system of power aggregation is discussed, as is the modern development of short-wave output stages feeding separate aerial arrays. An analysis is made of parallel and series operation of two power valves, particularly under class C conditions. Matching modulation transformers, transmission line feeders and equal load distribution problems are considered concerning discrepancies in such parameters as driving input and valve and load characteristics. A. L.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

"Problems in the Construction of High-Power Radio Stations" (Voprosy postroyeniya moshchnykh radiostantsiy). Gosenergoizdat, 206 pp., 1947

[redacted]/Distortion, Frequency Apr 1946
Amplifiers, High frequency

"A Theory of Frequency Distortion in the Doherty HF Amplifier," Prof Z. I. Model', Candidate of Mech Sci, 11 pp

"Radiotekhnika" Vol I, No 1

Basic circuits of the Doherty amplifier and the conditions for obtaining non-distorted modulation. A theory of frequency distortion is given based on the superposition law method, and formulae for a circuit permitting the use of previously obtained curve equations. Special features of distortion are considered.

1973

In conjunction with I.Kh NEVYAZHSKIY , wrote book, "Course on Radio Transmitters." This book treats the following topics: electron tubes, oscillation circuits, generator with circuit arrangements, self-excitation, modulation, etc. In addition the methods of designing transmitter systems are described.

REF: Radio Front #21-22, p.64, 1938

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

BYCHKOVSKIY, A.L., inzh.; KONOPLEV, Yu.I., inzh.; MODEL', I.S., inzh.

Porous outer wall lining. Energomashinostroyenie 11 no.1:45-47
Ja '65. (MIRA 18:2)

KOVALEV, A.P., doktor tekhn. nauk, prof.; LELEYEV, N.S.; KHZMALYAN, D.M.; MAKSIMOV, V.M.; PANASENKO, M.D.; KAGAN, Ya.A.; MODEL', Z.G.; TROYANSKIY, Ye.A.; VILENSKIY, T.V.; RYZHKIN, V.Ya.; MOZHAROV, N.A.

[Atlas of boiler systems (supplement)] Atlas kotel'nykh agregatov (dopolnenie). [By] A.P.Kovalev i dr. Moskva, Gosenergoizdat, 1963. 22 fold. (MIRA 17:3)

LIPETS, A.U., inzh.; MODEL', Z.G., inzh.; NOVISH, A.M.; IVYANSKIY, S.I., kand.tekhn.nauk

Regulation of intermediate superheating by bypassing steam according to the Zio method. Teploenergetika 9 no.8:64-68 Ag '62. (MIRA 15:7)

1. Podol'skiy mashinostroitel'nyy zavod.
(Boilers) (Steam)

MODEL', Z.G., insh.

PK-33-83SP large capacity once-through boiler. Energomashinostroenie 6 no.4:1-7 Ap '60. (MIRA 13:8)
(Boilers)

ZAKHAROV, A.A., kand.tekhn.nauk; MOCHAN, S.I., kand.tekhn.nauk; SHCHERBAKOV, V.A., kand.tekhn.nauk; BRAUDE, I.Ye., insh.; IVYANSKIY, S.I., insh.; MODEL', Z.G., insh.

Reliability of steam superheaters. Elek.sta. 30 no.1:91-94 Ja '59. (MIRA 12:3)

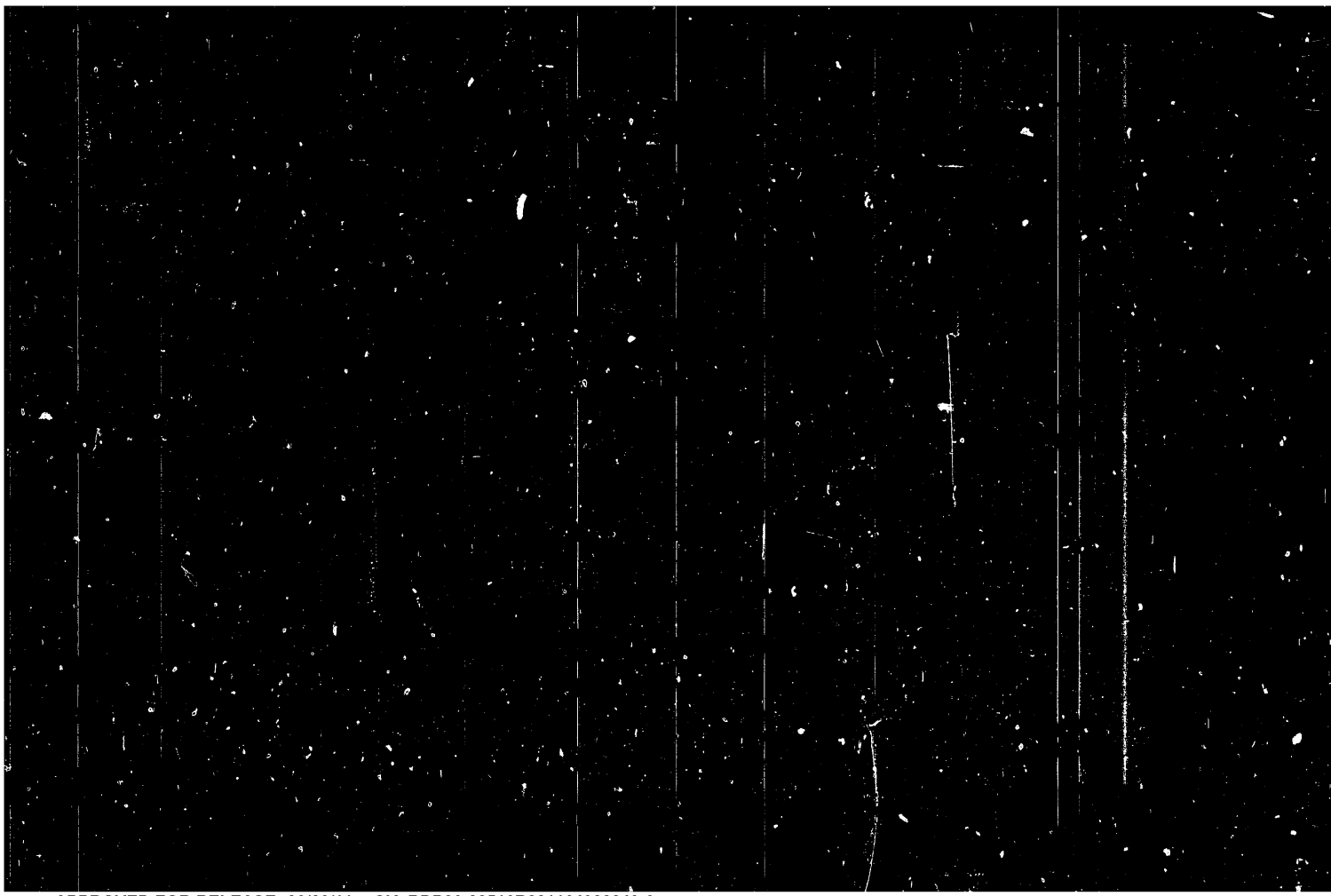
(Superheaters)

MOSKL, E. G. ZIO

"Project of a Direct-flow 700 t/h Boiler for Generating 315 atm, 655° C Steam to be Built In as a Super-critical Extension in the GES Nr 4 Mosenergo Power Station."

The Commission for High-parameter Steam of the Energeticheskiy institut (Power Institute) imeni G. M. Krzhizhanovskogo AN SSSR held a conference on May 16, 1958 devoted to new types of equipment for block-assembled power stations, operating at super-critical steam parameters. This paper was read at this conference.

Izv. Akad Nauk SSSR, Otdel Tekh nauk, 1958, No. 7, p. 152



MODEL, Yu.M

(13)

PHASE I BOOK EXPLOITATION SOV/3606

Nauchnaya konferentsiya po problemam meteorologii Antarktiki, Moscow, 1959

Tezisy dokladov (Theses of Reports at the Scientific Conference on Meteorological Problems in Antarctica, Moscow, 1959) Moscow, Gidrometeoizdat (Otd-niye) 1959. 47 p. 1,000 copies printed.

Ed.: O.G. Krichak; Tech. Ed.: I.M. Zarkh.

PURPOSE: The publication is intended for meteorologists, particularly for those interested in the climatology of Antarctica.

COVERAGE: This book contains summaries of thirty-five reports presented at the Scientific Conference on Meteorological Problems in Antarctica, held in Moscow, October 26 to 28, 1959. The summaries are arranged in four groups: (1) general problems of the geography of Antarctica; (2) atmospheric circulation; (3) radiation balance, heat balance, climate and special features of individual elements; (4) methods of observation and measurement. No personalities are mentioned. There are no references.

PART I. GENERAL GEOGRAPHICAL PROBLEMS

PART II. ATMOSPHERIC CIRCULATION

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

12-90-2-2/30

The Preliminary Results of the Glaciological Investigations of the First Soviet Continental Expedition to the Antarctic

glaciers and ice domes; experimental ice borings; 6) glacier movement speeds, iceberg formation processes and geological activity of glaciers. There are 6 photographs, 1 map and 5 schematic drawings.

AVAILABLE: Library of Congress

Card 2/2 1. Geophysics 2. Ice-Antarctic-USSR 3. Snow-Antarctic-USSR

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

12-90-2-2/30

AUTHOR: Dolgushin, L.D., Vtyurin, B.I., Model', Yu.M., and Kapitsa, A.P.

TITLE: The Preliminary Results of the Glaciological Investigations of the First Soviet Continental Expedition to the Antarctic (Predvaritel'nyye rezul'taty glyatsiologicheskikh issledovaniy pervoy sovetskoy kontinental'noy ekspeditsii v Antarktide)

PERIODICAL: Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva, 1958, Vol 90, Nr 2, pp 118-133 (USSR)

ABSTRACT: The USSR Academy of Sciences undertook an Antarctic expedition in 1956 - 57. The coast of the Antarctic continent between 74° and 110° (eastern longitude) was explored for a distance of 2,000 km. Investigations included aerial observations over a total distance of 50,000 km. The authors give detailed descriptions of glaciological investigations which were concentrated on the following subjects: 1) the ice cover and glacier morphology in the eastern Antarctic according to topography, increase and decrease of glaciers; 2) the snow-accumulation processes, the dynamics, nature and properties of the snow cover; 3) the temperature conditions of snow, ice and upper layer of the Earth crust; 4) the composition and structure of the ice covers and shelf glaciers; 5) the thickness of ice covers, shelf

Card 1/2

[redacted], S. I.

"Theory of Plate Modulation," Radio Tekh., July, 1954

ACC NR: AT6034440

order of 70 microns. A second table gives the lattice constants of molybdenum alloys with different amounts of reducing additives. Based on the experimental data, the following main conclusions were drawn: 1) the value of the lattice constant is sensitive to a change in the content of the impurities introduced into the solid solution based on molybdenum during its refining; 2) for the same material (molybdenum of different purity) the lattice constants measured on massive samples were larger than those measured on powder samples, which indicated a partial decomposition of the solid solution; 3) molybdenum alloys with reducing additives (carbon, titanium, and zirconium) in the cast state have a larger lattice constant than the starting metalloceramic molybdenum; 4) in the annealing of deformed samples with reducing additives, there take place transformations, the mechanism and the rate of which depend on the chemical nature and the amount of the reducing additives; 5) the coefficients of thermal expansion of molybdenum of different purities and of alloys based on molybdenum, measured in the interval from room temperature to 800°C, are close to each other, and have a value of the order of (6.0-5.8) x 10^{-6}/degree. Orig. art. has: 4 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: 10Jun66/ ORIG REF: 002/ OTH REF: 008

Card 2/2

ACC NR: AT6034440 (A) SOURCE CODE: UR/0000/66/000/000/0093/0098

AUTHOR: Ageyev, N. V.; Model', M. S.

ORG: none

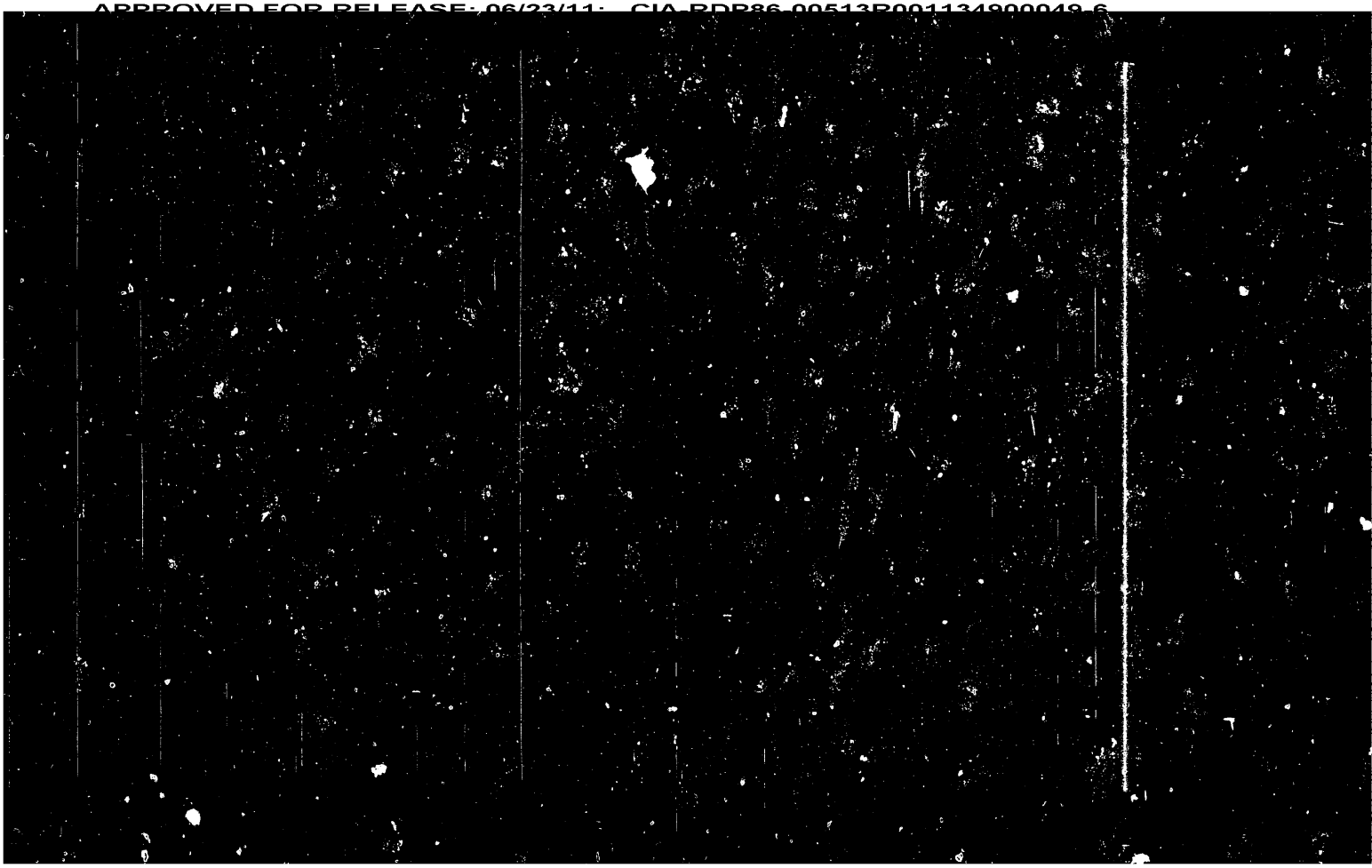
TITLE: The effect of small additions and impurities on the lattice constant and thermal expansion of molybdenum

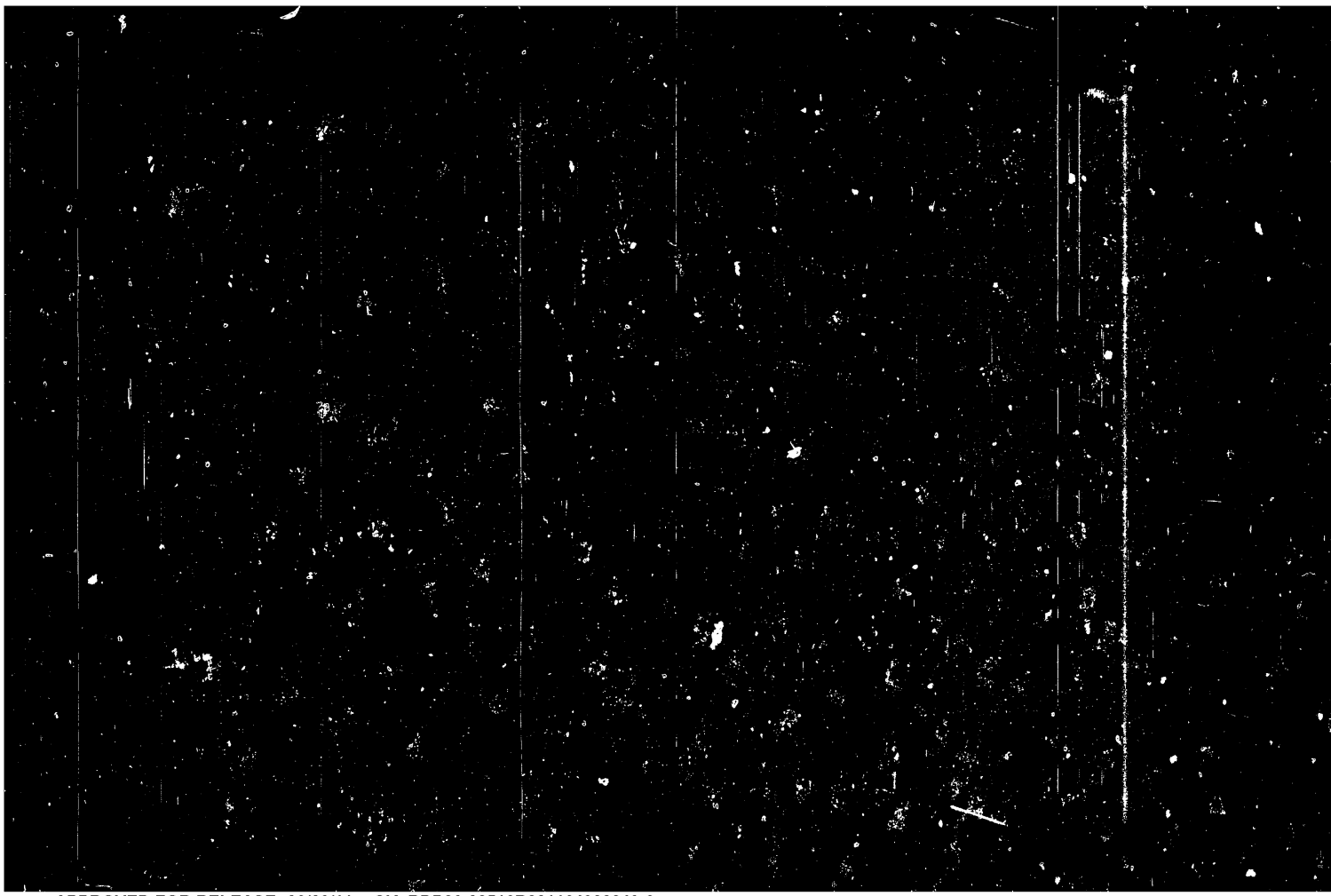
SOURCE: AN SSSR. Institut metallurgii. Svoystva i primeneniye zharoprochnykh splavov (Properties and application of heat resistant alloys). Moscow, Izd-vo Nauka, 1966, 93-98

TOPIC TAGS: molybdenum, crystal lattice, thermal expansion

ABSTRACT: The article reports measurement of the lattice constant of metalloceramic molybdenum and an evaluation of its change with different degrees of refining. The samples were prepared by arc melting in a vacuum, by melting in a suspended state, by zone refining, and by electron beam melting. The lattice constants were measured by reverse exposure with flat, massive, and powder samples. Spectrally pure gold was used as the standard. A table, based on the experimental results, gives the values of the lattice constants for molybdenum of different purities. It was found that annealing at 1200°C completely eliminates the stresses. The depth of the hardened layer depends on the method of working the surface; in the given case, it was of the

Card 1/2





ACCESSION NR: AT4013921 S/2659/63/000/0015/0022

AUTHOR: Ageyev, N. V.; Model', M. S.

TITLE: Thermal expension of chromium and solid solutions with a chromium base

SOURCE: AN SSSR. Institut metallurgii. Issledovaniya po zharoprochnym splavam, v. 10, 1963, 15-22

TOPIC TAGS: chromium, chromium heat expansion, solid solution, chromium solid solution, isothermal curve, chromium solubility, thermal expansion, elasticity, elasticity modulus, roentgenography

ABSTRACT: One of the most important problems in the preparation of heat-resistant alloys is to increase the strength of the atomic interaction between the metal and the base. The present investigation used the roentgenographic method to measure the coefficients of thermal expansion of chromium (the metal with the best possibilities for heat-resistant materials) and of its solid solutions with molybdenum and vanadium. Figure 1 of the Enclosure shows the dependence of the modulus of elasticity on the content of molybdenum in solid solutions of Cr-Mo and the isothermic curve of the coefficients of thermal expansion of these alloys. The modulus of elasticity of the Cr-Mo alloys was measured by V. V. Kondrat'yev. In the region of the maximal increase of atomic interaction, the coefficient of thermal expansion is

Card 1/3

RUDNEVA, A.V.; MODELI, M.B.; SOLOV'YEV, V.I.

An iron-titanium mineral from placer deposits. Titan i ego splavy no.9:10-15 '63. (MIRA 16:9)

(Arizonite—Testing)
(Titanium compounds—Testing)

MODEL, M. S., and AGEYEV, N. V.

"On the thermal expansion of chromium-base alloys"

Seminar on production methods, physical properties, and electron structure of refractory metals, compounds, and alloys, organized by the Institute of Powder Metallurgy and Special Alloys AS Ukr SSR, Kiev, 25-29 April 1963.
(Teplofizika vysokikh temperatur, No. 1, 1963, p. 156)

MODEL', M.S.; RUDNEVA, A.V.; DMITROVSKIY, Ye.B.

About the system $CaO.TiO_2$ - TiO - TiO_2 . Titan i ego splavy no.9: 278-279 '63. (MIRA 16:9)

(Systems (Chemistry))
(Phase rule and equilibrium)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

Ya. A. Kraftmakher. Heat capacity of W, Ta, and Nb.

V. M. Amonenko and others. Expansion coefficients of Zr, Nb, Mo, Ta, and W.

N. V. Ageyev, M. S. Model'. Expansion coefficients of chromium-base alloys.

S. N. L'vov, V. F. Namchenko. Temperature dependence of emf and resistivity of Cr, Ti, V, and their borides, carbides, and nitrides; Ettingshausen-Nernst effect in titanium, TiB_2, TiC, and TiN.

N. V. Kolomoyets. The emf of chromium-group metals and their alloys.

G. V. Samsonov and others. Superconductivity and thermal-electron properties of refractory compounds.

D. A. Prokoshkin and others. Magnetic, optical, and other properties of refractory elements and the oxidation resistance of beryllides of refractory elements.

Card 10/11

Study of solid solutions of niobium and titanium in chromium.
Dokl. AN SSSR 148 no.1:84-85 Ja '63. (MIRA 16:2)

1. Institut metallurgii im. A.A. Baykova. 2. Chlen-korrespondent AN SSSR (for Ageyev).
(Chromium-niobium-titanium alloys) (Solutions, Solid)

Ja-F '63. (MIRA 16:3)

(Titanium--Metallurgy) (Phase rule and equilibrium)

Dokl. AN SSSR 140 no.4:871-873 O '61. (MIRA 15:11)

1. Institut metallurgii im. A.A. Baykova. Predstavleno akademikom N.V. Belovym.

(Titanium oxide) (Solutions, Solid)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

uchastiye: RUDNEVA, A.V., kand.geologo-mineralogicheskikh nauk; MODEL', M.S., kand.khimicheskikh nauk

Developing a flowsheet for the use of leucoxene-bearing ores. Titan i ego splavy no.5:13-16 '61. (MIRA 15:2)
(Titanium ores)
(Leucoxene)

X-ray investigation ...

TiO_2, such as $2FeO.TiO_2$, $FeO.TiO_2$ (ilmenite) and isomorphous anosovite $FeO.2TiO_2$ which is stable under reducing conditions. It is concluded that the synthetic and industrial slags studied consist of compounds corresponding to the equilibrium diagrams of the appropriate systems and of the lower titanium oxides, forming as the result of reduction during melting. The basic phase constituents of multicomponent slags consist of solid solutions based on these oxides, and not of stoichiometric compounds. The percentages of titanium oxides of different valencies determine the industrial properties of the slags. There are 4 tables and 14 references: 9 Soviet-bloc and 5 non-Soviet-bloc. The references to the English-language publications read as follows: E.S. Bumps, H.D. Kessler and M. Hasenn, TASM, 45, 1009,(1953); R.C. De Vries and R.Roy, Am. Ceram. Soc. Bull., 33, no. 12, 370, (1954); E.S. Naylor, J.Am.Chem. Soc., no. 5-6, (1946).

Card 2/2

D217/D302

AUTHORS: Ageyev, A.V. and Model', M.S.

TITLE: X-ray investigation of titanium slags

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Titan i yego splavy. No. 4. Moscow, 1960. Metallurgiya titana, 65-72

TEXT: This work is part of a complex investigation of titanium slags. All synthetic slags were prepared by T.P. Uklova, I.A. Karyazin and Ye. B. Dmitrovskiy. The mineralogical investigation was carried out by A.V. Rudneva and T.Ya. Malysheva. Synthetic slags of the following systems were studied: $FeO-Ti_2O_3-TiO_2$, $FeO-Ti_2O_3-TiO_2-SiO_2$, $FeO-Ti_2O_3-TiO_2-MgO-Al_2O_3-SiO_2$, sometimes with additions of CaO. Melting occurred under neutral conditions. The degree of reduction in the melting depends on the ratio Ti_2O_3/TiO_2. The basic phase constituents in these systems are the lower titanium oxides and compounds forming between FeO and

Card 1/2

are Soviet.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR (Institute of Metallurgy imeni A. A. Baykov of the Academy of Sciences, USSR)

PRESENTED: October 4, 1958, by I. P. Bardin, Academician

SUBMITTED: September 29, 1958

Card 4/4

Radiographic Investigation of Titanium Oxides in Titanium Slags

formation of Ti_6O_{11} ($Ti_2O_3 \cdot 4TiO_2$) and afterwards to a solid solution of rutile (TiO_2). In the anosovite-containing system ($MgO\text{-}TiO_2$ and all other systems) no Ti_6O_{11} is produced on the decrease of the reduction degree, but rutile (or the solid solutions mentioned) appear in addition to anosovite. According to the above-mentioned data, the slag systems are divided into two groups: 1) those without ions which are capable of replacing Ti^{+2} and Ti^{+3} on the decrease of the reduction degree; 2) the remaining systems containing at least 1 ion that is capable of replacing bi- and trivalent titanium ions (Mg^{2+}, Fe^{2+}, Fe^{3+}, Al^{3+}). The titanium oxides of the first group produce solid solutions both with Ti and O. In the systems of the second group solid solutions of the substitution are formed. There an uninterrupted series of solid solutions between Ti_2O_3 and the minerals of the ilmenite and anosovite group is formed here (Ref 7). Accordingly, anosovite can hardly be regarded any longer as a high-temperature modification of Ti_3O_5 as has been hitherto the case (Ref 1). There are 8 references, 6 of which

Radiographic Investigation of Titanium Oxides in Titanium Slags

synthetic samples mentioned. For this reason it is necessary to study the rules governing slag formation in various slag systems. For this purpose, the author shows the typical features of lower titanium oxides formed during the melting process according to the composition of the system and the degree of reduction. As a result it was found that in all investigated systems molten under intensively reducing conditions well known modifications of TiO (structure of the NaCl type) and Ti_2O_3 (structure of the type α - Al_2O_3) were produced. On a regular reduction Ti_3O_5 is formed. From among the known 2 modifications of Ti_3O_5 this or that is formed according to the composition of the system. a) Anosovite is produced in the systems $MgO-TiO_2$, $FeO-TiO_2$, $Al_2O_3-TiO_2$, $MgO-CaO-TiO_2$, $FeO-MgO-Al_2O_3-TiO_2$ and $CaO-TiO_2-SiO_2-Al_2O_3$. b) A second Ti_3O_5 modification is formed under the same conditions of reduction in the systems $CaO-TiO_2$ and $CaO-TiO_2-SiO_2$. It is also formed invariably in the system $TiO-TiO_2$ on the reduction of TiO_2 (Refs 2-4). A further decrease of the

 reduction degree in the three last-mentioned systems leads to the

5(1,2)

AUTHOR: Model', M. S. SOV/20-124-4-44/67

TITLE: Radiographic Investigation of Titanium Oxides in Titanium Slags (Rentgenograficheskoye issledovaniye okislov titana v titanovykh shlakakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 4, pp 887-889 (USSR)

ABSTRACT: In order to determine the phase composition of titanium-containing slags, the author investigated commercial slags and synthetic samples similar to them in composition (this work represents part of the multi-purpose investigation of these slags by the Institute mentioned in the Association. The syntheses mentioned were carried out by Ye. B. Dmitrovskiy, T. P. Ukolova and I. A. Karyazin, A. V. Rudneva and T. Ya. Malysheva conducted the mineralogical investigation). The synthetic samples were alloys of oxide systems: of MgO, FeO, CaO, Al_2O_3 with TiO_2, furthermore MgO-CaO, FeO-MgO-Al_2O_3, CaO-SiO_2 and CaO-SiO_2-Al_2O_3 with TiO_2. They were molten under reducing conditions; therefore their phase composition did not correspond to that of equilibrium state diagrams. Besides chemical compounds characteristic of equilibrium systems, there are also lower titanium oxides present in commercial slags and the

Card 1/4

AGEYEV, N.V.; REZNICHENKO, V.A.; UKOLOVA, T.P.; MODEL', M.S.

Lower titanium oxides. Titan i ego splavy no.2:64-72 '59.
(MIRA 13:6)

1. Institut metallurgi AN SSSR.
(Titanium oxides)

RUDNEVA, A.V.; MODEL', M.S.; MALYSHEVA, T.Ya.

Solid solutions in high titanium slags. Titan i ego splavy no.2:50-63 '59. (MIRA 13:6)

1. Institut metallurgii AN SSSR.
(Titanium) (Slag—Analysis) (Phase rule and equilibrium)

MODEL', M.S.

Rudneva, A.V., M.S. Model', and T.Ya. Malysheva (Institute of Metallurgy, Academy of Sciences USSR). Solid Solutions in High-Titanium Slags, p. 50. Titan i yego splavy. vyp. II: Metallurgiya titana (Titanium and Its Alloys. No. 2: Metallurgy of Titanium) Moscow, Izd-vo AN SSSR, 1959. 179 p.

This collection of papers deals with sources of titanium; production of titanium dioxide, metallic titanium, and titanium sheet; slag composition; determination of titanium content in slags; and other related matters. The sources of titanium discussed are the complex sillimanite ores of the Kyakhtinskoye Deposit (Buryatskaya ASSR) and certain aluminum ores of Eastern Siberia. One paper explains the advantages of using ilmenite titanium slags for the production of titanium dioxide by the sulfuric acid method. Production of metallic titanium by thermal reduction processes (hydrogen, magnesium, and carbon reduction) is the subject of several papers, while other papers are concerned with the electrolytic production of titanium. Other subjects dealt with are interaction of titanium with water vapor and with hydrogen and the determination of titanium in slags.

On the Determination of the Content of Gaseous Impurities in Titanium by the Amount of the Crystal-Lattice Constant

78-3-6-24/30

SUBMITTED: May 15, 1957

AVAILABLE: Library of Congress

1. Titanium--Impurities 2. Titanium--Radiographic analysis
3. Chemical impurities--Determination

Card 3/3

On the Determination of the Content of Gaseous Impurities in Titanium by the Amount of the Crystal-Lattice Constant

78-3-6-24/30

0,8 % on the amount of the crystal lattice-constant c is determinable, since its influence on c takes place almost additively. With such samples, first the amount of contaminations and the concentration of oxygen is determined by the difference of samples with known nitrogencontent by the determination of the amount c.

The radiographic method for the determination of the oxygen content can be successfully applied in such metalsamples in which the content of metallic impurities and nonmetallic influences is almost constant. The character of the distribution of oxygen, or nitrogen in titanium metal and in the oxides of the nonmetallic inclusions can also be indicated by the determination of the crystal lattice constant c.
There are 3 figures, 3 tables, and 31 references, 1 of which is Soviet

Card 2/3

AUTHORS: Ageyev, N. V., Model', M. S. 78-3-6-24/30

TITLE: On the Determination of the Content of Gaseous Impurities in Titanium by the Amount of the Crystal-Lattice Constant (Ob opredelenii soderzhaniya gazovykh primesey v titane po velichine postoyannykh kristallicheskoy reshetki)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 6, pp. 1439-1446 (USSR)

ABSTRACT: The possibilities of determination of the dissolved, gaseous impurities in α-titanium by the amount of the crystal-lattice constant c by means of radiographic methods were described in the present paper.
The amount of the crystal lattice constant a changes according to the quantity of oxygen. The crystal-lattice constant c of α-Ti amounts to 4,68 Å and may undergo a change of up to 4,82 Å due to oxygen contaminations which is present as a solid solution with α-Ti. The amount c can be calculated with an accuracy of up to 0,05 % by means of radiographic investigations.
The action of nitrogen up to 0,15 % and of oxygen up to

Card 1/3

20-1-38/54

New Types of Solid Solutions in High Titanium Slags

ASSOCIATION Institute for Metallurgy "A.A. BAYKOV" of the Academy of Sciences of the U.S.S.R. (Institut metallurgii im. A.A. Baykova Akademii Nauk SSSR),

PRESENTED BY BARDIN, I.P., Member of the Academy, October 1, 1956.

SUBMITTED 27.9.1956

AVAILABLE Library of Congress

Card 3/3

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

TiO_2-Ti_2O_3-FeO-SiO_2 in the region of high content of titanium oxide. In reflected light they are brownish-gray with a noticeable pleochroism of reflection from brownish-gray to pink-gray. In the case of crossed Nicols a marked anisotropic effect manifests itself. In permeating light they are completely opaque. X-ray investigations confirm the assumption that this phase represents a solid solution of TiO_2 in ilmenite. As a result of the investigations new series of solid solutions of unlimited miscibility were discovered and studied: 1.) 2FeO . TiO_2 and 2.) Fe, Mg, Mn) . TiO_2 - Ti_2O_3. The investigation carried out showed that besides previously discovered and described solid solutions with an anosovite structure Ti_3O_5 the newly-discovered mixed crystals play a very important part in the phases of high-titanium slags. It has to be added that the most widely spread silicate phase of high-titanium slags - titanium augite - also represents a solid solution of complex composition. It is built according to the type of the chain structure of the anion radical $(Si, Al)_2O_6$.
(With 3 illustrations, 3 tables, 7 Slavic references).

Card 2/3

AUTHOR [redacted]

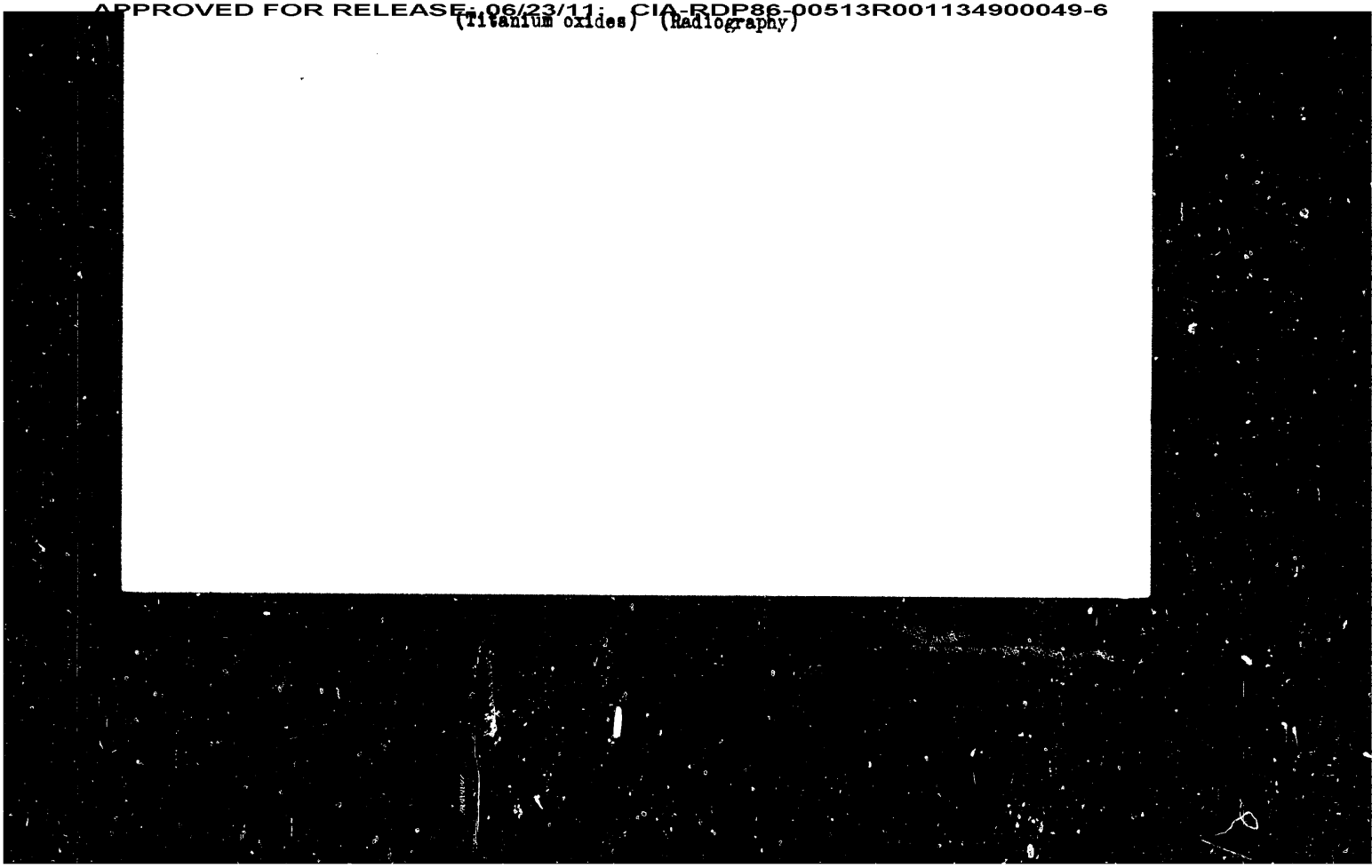
TITLE New Types of Solid Solutions in High Titanium Slags
(Novyye vidy tverdykh rastvorov v vysokotitanovykh shlakakh. Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 115, Nr 1, pp 141 - 144 (U.S.S.R.)

ABSTRACT The microstructure and the phase composition of these slags often were objects of investigations both in this country and abroad. But the problems of mineral formation in multicomponent systems, as these slags are, have hitherto not been sufficiently well investigated. The phase composition of the slag varies considerably according to conditions of crystallization, chemical composition, temperature, and melting regime. By earlier investigations in the institute (see below) a number of new solid solutions was discovered beside the anosovite group (Ti_3O_5) namely solid solutions on the basis of magnesiumorthotitanate, ilmenite and Ti_2O_3. The former two were discovered by the authors in silicate-titanium-slags. Under the microscope the solid solutions $2(Mg, Fe)O \cdot TiO_2$ are represented by idiomorphic opaque, optically isotropic crystals of cubical appearance. They differ from magnesiumorthotitanate by a yelloish-brown nuance in reflected light. It may be assumed that these crystals belong to a new type of solid solutions between $2MgO / TiO_2$ and $2FeO \cdot TiO_2$. Solid solutions on an ilmenite basis were detected by the authors in the system

Card 1/3

(Titanium oxides) (Radiography)



137-1958-2-2342

Minerals of the "Anosovit" Group

minerals of the anosovit groups and tables of interfacet distances for all the mineral phases discovered in the investigated slags. Bibliography. 12 references. A.R.

1. Minerals--Optical characteristics 2. Minerals--X-ray characteristics

Card 3/3

137-1958-2-2342

Minerals of the "Anosovit" Group

ranging from 4 to 18%) revealed the presence of a continuous series of solid solutions between the compounds $M_gO \cdot 2TiO_2$ and Ti_3O_5 (anosovit). An account is given, also, of the conditions of formation and of the optical properties of such artificial minerals as orthotitanate of magnesia, $2MgO \cdot TiO_2$, and the crystalline sesquioxide of titanium (Ti_2O_3) which are often concomitant phases of high-titanium "anosovit" slags. A study of the conditions of formation of $2MgO \cdot TiO_2$ led to the conclusion that it is desirable to limit the quantity of Mg introduced into slag melts. The introduction of MgO is useful only so long as a magnesium-anosovit compound more easily fusible than Ti^{3+} anosovit is forming; the MgO becomes detrimental when its surplus combines with the higher oxides of Ti to form a fusion-resistant orthotitanate of Mg with a melting temperature of 1830°. The identification of mixed crystals with a structure Ti_3O_5, as enumerated above - - having different concentrations of Ti^{3+}, Mg and Al - - confirmed the correctness of existing concepts concerning the structure of minerals belonging to the anosovit groups and concerning the continuous series of solid solutions based on the Ti_3O_5 structure. The article includes photomicrographs of

Card 2/3

. MODEL', M. S.

137-1958-2-2342

Translation from: Referativnyy zhurnal. Metallurgiya. 1958, Nr 2, p. 9 (USSR)

AUTHORS: Tagirov, K.Kh., Rudneva, A.V., Model', M.S., Dmitrovskiy, Ye B

TITLE: Minerals of the "Anosovit" Group (Mineraly gruppy anosovita)

PERIODICAL: Tr. In-ta metallurgii AN SSSR. 1957. Nr 1, pp 21-32

ABSTRACT: An account is given of the optical and X-ray characteristics of minerals of the "anosovit" group. These minerals were identified from a study of the crystallization products of reducing fusions of the systems $CaO-TiO_2$ (with 14% CaO and 86% TiO_2), $CaO-MgO-TiO_2$ (with 11-15% CaO, 73-75% TiO_2, and 4-16% MgO), $MgO-TiO_2$ (with 18% MgO and 82% TiO_2), and $Al_2O_3-TiO_2$ (with 20% Al_2O_3 and 80% TiO_2). In the series of high-titanium slags investigated, five varieties of mineral belonging to the anosovit group were identified 1) Ti^{3+} anosovit - with Ti^{3+} predominating; 2) Ti^{4+} anosovit - with Ti^{4+} predominating, 3) magnesium anosovit - with Mg in solid solution; 4) aluminum anosovit - with Al in solid solution; 5) ferruginous anosovit - with iron in solid solution. A detailed examination of the slags of the $CaO-MgO-TiO_2$ type (with an MgO concentration in the anosovit

Card 1/3

MODEL, M. S., FRIDLYANDER, I. N., FILLIPOVA, Z. G.

"Dependence of Temperature at Crystallization Threshold on Degree of Overcooling of the Fusion"
Izv. Sektora Fiz. Khim. Analiza IONKh AN SSSR, 22, 1953, pp 71-82

The temperature along the moving crystallization threshold in the overcooled liquid is studied. Basic measurements are processed in benzophenone. Experimental results show a sharp temperature jump of the thermocouple junction at the instant the moving crystallization threshold passes through. The phenomenon is ascribed to the release of latent heat. (RZhFiz, No 11, 1954)

SO: W-31187, 8 Mar 55

MODEL', M. S.

"Investigations of Alloys of the Silver-Magnesium-Zinc System in the Region Beta-Phases." Sub 20 Jun 51, Inst of General and Inorganic Chemistry imeni N. S. Kurnakov, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

NOMEL', M.M.

[Rheumatic encephalitis in children; clinical aspects, pathophysiology and treatment] Revmaticheskie entsefality v detskom vozraste; klinika, patofiziologiia, lechenie. Moskva, Medgiz, 1956. 187 p. (MLRA 9:5)
(ENCEPHALITIS)

MODEI', L.M. [deceased]

Metabolism and resistance to tuberculosis. Akt. vop. tub. no.2: 17-25 '63. (MIRA 17:9)

MODEL', Leonid Markovich; USPENSKIY, V.I., red.; LYUDKOVSKAYA, N.I., tekhn. red.

[Essays on the clinical pathophysiology of tuberculosis] Ocherki klinicheskoi patofiziologii tuberkuleza. Moskva, Medgiz, 1962. 322 p. (MIRA 16:1)

(TUBERCULOSIS)

MODEL, L.M.

On the significance of works of Prof.Kisel in the filed of tuberculosis, (in connection with the hundredth anniv.:sary of birth of Prof. A.A.Kisel). Suvrem.med.,Sofia 2 no.1:132-135 '60.
(BIOGRAPHIES)
(TUBERCULOSIS hist.)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

MODEL', L.M., prof.

Interrelationships of allergy and immunity in tuberculosis.
Probl.tub. 37 no.2:78-80 '59. (MIRA 12:9)
(TUBERCULOSIS, immunol.
allergy & immunity, interrelationships (Rus))

MODEL, L.M., prof. (Moskva)

Allergic reactivity and increased sensitivity to tuberculin in tuberculosis. Suvrem.med., Sofia no.9/10:8-14 '59.
(TUBERCULIN REACTION)

MODEL', L.M.; ZIMIN, A.Ye.

Permanganate method for determining the catalase activity of bacteria. Lab. delo 5 no.1:7-9 Ja-F '59. (MIRA 12:3)

1. Iz 3-y Moskovskoy gorodskoy tuberkuleznoy bol'nitsy "Zakhar'ino" (glavnyy vrach V.P. Petrik).
(CATALASE) (MYCOBACTERIUM TUBERCULOSIS)
POTASSIUM PERMANGANATE)

BUNINA, B.Z., prof.; DRABKINA, R.O., prof.; KLIMANOVA, A.A., kand. biolog.nauk; KOSMODAMIANSKIY, V.N., prof.; MODEL', L.M., prof.; RABUKHIN, A.Ye., prof.; STRUKOV, A.I., prof.; STUKALO, I.T., prof.; TIMASHEVA, Ye.D., kand.med.nauk; CHISTOVICH, A.N., prof.; SHMELEV, N.A., prof.; MYNIS, V.L., prof., zasluzhennyy deyatel' nauki, otv. red., red.toma; KORNEV, P.G., prof., red.; KUDRYAVTSEVA, A.I., prof. [deceased], red.; LEBEDEVA, Z.I., kand.med.nauk, red.; LAPINA, A.I., red.; MASSINO, S.V., doktor med.nauk, red.; SHKRANOV, F.V., prof., zasluzhennyy deyatel' nauki, red.; SENCHILO, K.K., tekhn.red.

[Multivolume handbook on tuberculosis] Mnogotomnoe rukovodstvo po tuberkulezu. Moskva, Gos.izd-vo med.lit-ry. Vol.1. [General problems in tuberculosis] Obshchie problemy tuberkuleza. Red. toma: V.L.Minis, A.I.Strukov. 1959. 672 p. (MIRA 13:6)

1. Chlen-korrespondent AMN SSSR (for Strukov, Shmelev). 2. Deystvitel'nyy chlen AMN SSSR (for Kornev).
(TUBERCULOSIS)

MODEL', L.M., prof. (Moskva)

Effect of antibacterial therapy on the biological characteristics of the tuberculosis agent. Probl. tub. 36 no.8:63-67 '58 (MIRA 12:7)
(MYCOBACTERIUM TUBERCULOSIS) (BACTERIA, EFFECT OF DRUGS ON)

MODEL, L.M., Prof., Moskva

[redacted] Toxic side-effects of antibacterial therapy of tuberculosis and methods of their prevention. Suvrem. med., Sofia 9 no.7&3-11 1958.

(STREPTOMYCIN, inj. eff.
side eff. in ther., prev. (Bul))
(ISONIAZID, inj. eff.
same)
(PARAAMINOSALICYLIC ACID, inj. eff.
same)

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MODEL, I. M.

Problems of hormone therapy of tuberculosis. Suvrem. med., Sofia 9 no.6: 3-11 1958.

(TUBERCULOSIS, ther.
cortisone & ACTH (Bul))
(CORTISONE, ther. use
tuberc. (Bul))
(ACTH, ther. use
same)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

MOEML', Leonid Markovich

[Biology of Mycobacterium tuberculosis and the immunobiology of tuberculosis] Biologiia tuberkuleznykh mikobakterii i immunobiologiia tuberkuleza. Izd.2., perer. Moskva, Medgiz, 1958. 315 p. (MIRA 12:6)

(TUBERCULOSIS)

MODEL, L.M., Prof.

Effect of antibacterial therapy on biological properties of causative agents of tuberculosis. Suvrem. med., Sofia 8 no.11:11-19 1957.

1. Iz Klinichnata tuberkulozna bolnitsa Zakharino Moskva (Glaven lekar: V. P. Petrik).

(MYCOBACTERIUM TUBERCULOSIS, effect of drugs on, antibact. drugs (Bul))

MODNL', L.M., professor (Moskva)

Mechanism of the action of isonicotinic acid derivatives. Klin.med. 34 no.7:50-55 Jl '56. (MLRA 9:10)
(NICOTINIC ADIC ISOMERS, deriv.
eff.)

MOZHEL', L.M., professor.

Pharmacology and toxicology of isonicotinic acid derivatives; review of foreign periodical literature. Sovrem. probl. tuberk., Moskva 7 no.3:3-8 1956. (MLRA 9:6)

(NICOTINIC ACID ISOMERS,
pharmacol. & toxicol., review (Rus))

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

MODEL', L.M. professor; SHCHEGLOVA, A.S.

The effect of streptomycin on the growth and on some biochemical qualities of cultures of Mycobacterium tuberculosis.
Probl. tub. no.6:46-52 N-D '55. (MLRA 9:2)

1. Iz biokhimicheskoy laboratorii (zav.,-prof. L.M. Model')
Instituta tuberkuleza Akademii meditsinskikh nauk SSSR (dir. Z.A. Lebedeva).
(STREPTOMYCIN, eff.
M. tuberc.)
(MYCOBACTERIUM TUBERCULOSIS, eff. of drugs on
streptomycin)

MODEL', L.M., MELOGUROVA, V.P.

[redacted]ising properties of certain biochemical fractions of Mycobacterium tuberculosis and BCG. Probl. tuberk., Moskva No.5:54-56 Sept-Oct. 1953. (CLML 25:5)

1. Professor for Model'. 2. Of the Institute of Tuberculosis of the Academy of Medical Sciences USSR (Director -- K. A. Lebedeva; Head of Biochemistry Laboratory -- Prof. L.M. Model').

MODEL' L.M.

[redacted]

Virulence of drug resistant kinds of tubercle bacilli. Sovrem. probl. tuberk. Moskva 6 no.4:3-7 '55. (MLRA 8:8)
(MYCOBACTERIUM TUBERCULOSIS
virulence of drug resistant kinds)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900049-6

MODEL', L. M.

"On the Importance of Studying the Mediators of Nerve Stimulation in Tuberculosis"
Tr. In-ta Tuberkuleza Akad. Med. Nauk SSSR., 27, No 1, pp 80-92

The author studied the activity of cholinesterase in the blood of tuberculosis patients after injections of adrenalin and lymph preparations, and in pneumothorax, etc. The activity of cholinesterase fluctuates widely during the course of the disease. After treatment, most of the patients could return to their normal activities. Adrenalin injection normalizes the cholinesterase activity although in some cases it still fluctuates sharply. The author believes this to be a symptom of disturbed neurohumoral adjustment. During conditions of rest, the blood of the patients contained no acetylcholine and very little or no substance of the sympathin type due to its inactivation in the blood. Lysis of erythrocytesin healthy rabbits and also in healthy or tubercular people had toxic effects on hearts of frogs (acute contractions and even stoppage) similar to the effect of histamin and tuberculin. After adrenalin injection the toxic effect disappeared from the hemolysates in many cases. In vitro adrenalin decreased the toxic effect of hemolysates, histamin, and tuberculin. Pneumothorax and systematic injection of lymph preparations raised the activity of the sympathomimetic substances in blood and cholinesterase and led to normalization of the excitability and reactivity of the nervous system. Any irritant contained in the therapeutic agent acts on the nervous system in such a manner that it activates the mediators. Thus more sympathomimetically active substances are produced affecting the cholinesterase and strengthening the processesof desensitization and desintoxication since the mediators lower the sensibility of irritated organs to bacterial and cell toxins.
(RZhBiol, No 2, 1954) SO: Sum 492, 12 May 55

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